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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/780,783

02/18/2004

Alex Krister Raith

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24112 7590 05/06/2010

COATS & BENNETT, PLLC  
1400 Crescent Green, Suite 300  
Cary, NC 27518

EXAMINER

NGO, NGUYEN HOANG

ART UNIT

PAPER NUMBER

2473

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/780,783	<b>Applicant(s)</b> RAITH, ALEX KRISTER	
	<b>Examiner</b> NGUYEN NGO	<b>Art Unit</b> 2473	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 56-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 56,57,59-63 and 65-67 is/are rejected.
- 7) ☒ Claim(s) 58 and 64 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

This communication is in response to the pre-appeal decision of 3/17/2010.

Accordingly, Claims 56-67 are currently pending in the application.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 56-57, 59-63, 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funk (US 6169884), in view of Ohno (US 5848062), in view of Kanerva et al. (US 5793744).

**Regarding claim 56, 62**, Funk discloses a transceiver in a radio communication system (mobile radio device having a radio transmitter, abstract) comprising:

a transmitter for transmitting data over an air interface at a transmission data rate (radio 101 of figure 1 consisting of antenna 113 that radiates an amplified transmission signal, col3 lines 30-40 and figure 1);

a temperature measuring device for determining a temperature of said transmitter (thermister 115 of figure 1, col3 lines 13-53); and

a processor (processor 109 of figure 1) coupled to said transmitter and said temperature measuring device and configured to, in response to determining that a measured temperature exceeds a temperature threshold (a high temperature threshold, col3 lines 40-67), reduce an average power consumption of the transmitter (transmission power is reduced, col4 lines 20-30) by a controlled amount (col4 lines 1-10), by adjusting a transmit power per bit of the transmitter (control transmission power by reducing the power level, col3 lines 46-67 and col4 lines 25-35).

Funk however fails to specifically disclose reducing an average power consumption of the transmitter by adjusting the transmission data rate of the transmitter. However in a very similar endeavor, Ohno discloses a wireless communication equipment for a remote station having a function for controlling a temperature in the equipment (col1 lines 4-10). Ohno further discloses;

adjusting the transmission data rate of the transmitter (when a temperature sensor senses that the temperature in the box is higher then a set temperature , the temperature control portion changes a transmission rate, col5 lines 40-50 and col5 lines

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60-65). It would have thus been obvious to a person skilled in the art at the time the invention was made to incorporate the concept of modifying the data rate as disclosed by Ohno, into the method and apparatus for reducing power in radio transmitters as disclosed by Funk, in order to have additional means for efficiently reducing the temperature of a transceiver, so that the control of the temperature at the transmitter may be controlled in a more flexible manner, which incorporates the use of modifying a transmit power per bit (transmission power of signal) as well as modifying the transmission data rate.

The combination of Funk and Ohno however fails to specifically disclose adjusting a transmit power per bit of the transmitter in combination with adjusting the transmission rate of the transmitter. Kaberva however discloses the benefits of a lower number of active subchannels include reduced power consumption and less temperature problems and that this may be achieved by having the data rates and/or (in combination) power being decreased (col4 lines 10-20). Thus it would have been obvious to a person skilled in the art to incorporate the concept of adjusting a transmit power per bit in combination with adjusting the transmission data rate of the transmitter as disclosed by Kaberva with the teachings of Funk and Ohno which discloses either modifying a transmit power per bit or modifying the transmission data rate to efficiently have a plurality of means to reduce the temperature at a transmitter in which may use the adjustment of power and data rate in combination.

**Regarding claim 57, 63,** Funk discloses the transceiver of claim 56, wherein the transceiver comprises a mobile station (mobile radio device, abstract).

**Regarding claim 59, 61, 65, 67,** Funk discloses the transceiver of claim 56, wherein the processor is configured to reduce the average power consumption of the transmitter by decreasing the transmit power per bit of the transmitter and, in response to then receiving a transmit power control command (col3 lines 30-37 and cik4 lines 30-43) ordering the transceiver to increase its transmit power, increasing the transmit power per bit of the transmitter as commanded, in combination with decreasing the transmission data rate of the transmitter (this is simply the flexible means of reducing the power at a mobile station that the combination of Funk (reduce transmit power level) and Ohno (reduce transmission rate) may provide in which these are simply system parameters on how to reduce the power).

**Regarding claim 60, 66,** Ohno discloses the transceiver of claim 59, wherein the transceiver is configured to request a decrease in transmission data rate in association with decreasing the transmission data rate of the transmitter (col5 lines 35-40).

***Allowable Subject Matter***

1. Claim 58, 64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

2. Applicant's arguments with respect to claims 56-67 have been considered but are moot in view of the new ground(s) of rejection.

3.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. Dutta et al. (US 5982813)

6. Gilhousen et al. (US 5265119)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGUYEN NGO whose telephone number is (571)272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571)272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KWANG B. YAO/

Supervisory Patent Examiner, Art Unit 2473

/N. N./

Examiner, Art Unit 2473